Network Working Group
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TELNET TERMINAL TYPE OPTION

Status of This Memo

This RFC specifies a standard for the ARPA Internet community. Hosts on the ARPA Internet that exchange terminal type information within the Telnet protocol are expected to adopt and implement this standard. Distribution of this memo is unlimited.

This standard supersedes RFC 884. The only change is to specify that the TERMINAL-TYPE IS sub-negotiation should be sent only in response to the TERMINAL-TYPE SEND sub-negotiation. See below for further explanation.

1. Command Name and Code

TERMINAL-TYPE 24

2. Command Meanings

IAC WILL TERMINAL-TYPE

Sender is willing to send terminal type information in a subsequent sub-negotiation

IAC WON'T TERMINAL-TYPE

Sender refuses to send terminal type information

IAC DO TERMINAL-TYPE

Sender is willing to receive terminal type information in a subsequent sub-negotiation

IAC DON'T TERMINAL-TYPE

Sender refuses to accept terminal type information

IAC SB TERMINAL-TYPE SEND IAC SE

Sender requests receiver to transmit his (the receiver's) terminal type. The code for SEND is 1. (See below.)

IAC SB TERMINAL-TYPE IS ... IAC SE

Sender is stating the name of his terminal type. The code for IS is 0. (See below.)

3. Default

WON'T TERMINAL-TYPE

Terminal type information will not be exchanged.

DON'T TERMINAL-TYPE

Terminal type information will not be exchanged.

4. Motivation for the Option

This option allows a telnet server to determine the type of terminal connected to a user telnet program. The transmission of such information does not immediately imply any change of processing. However, the information may be passed to a process, which may alter the data it sends to suit the particular characteristics of the terminal. For example, some operating systems have a terminal driver that accepts a code indicating the type of terminal being driven. Using the TERMINAL TYPE and BINARY options, a telnet server program on such a system could arrange to have terminals driven as if they were directly connected, including such special functions as cursor addressing, multiple colors, etc., not included in the Network Virtual Terminal specification. This option fits into the normal structure of TELNET options by deferring the actual transfer of status information to the SB command.

5. Description of the Option

WILL and DO are used only to obtain and grant permission for future discussion. The actual exchange of status information occurs within option subcommands (IAC SB TERMINAL-TYPE...).

Once the two hosts have exchanged a WILL and a DO, the sender of the DO TERMINAL-TYPE is free to request type information. Only the sender of the DO may send requests (IAC SB TERMINAL-TYPE SEND IAC SE) and only the sender of the WILL may transmit actual type information (within an IAC SB TERMINAL-TYPE IS ... IAC SE command). Terminal type information may not be sent spontaneously, but only in response to a request.

The terminal type information is an NVT ASCII string. Within this

string, upper and lower case are considered equivalent. The complete list of valid terminal type names can be found in the latest "Assigned Numbers" RFC.

The following is an example of use of the option:

Host1: IAC DO TERMINAL-TYPE

Host2: IAC WILL TERMINAL-TYPE

(Host1 is now free to request status information at any time.)

Host1: IAC SB TERMINAL-TYPE SEND IAC SE

Host2: IAC SB TERMINAL-TYPE IS IBM-3278-2 IAC SE

6. Implementation Suggestions

The "terminal type" information may be any NVT ASCII string meaningful to both ends of the negotiation. The list of terminal type names in "Assigned Numbers" is intended to minimize confusion caused by alternative "spellings" of the terminal type. For example, confusion would arise if one party were to call a terminal "IBM3278-2" while the other called it "IBM-3278/2". There is no negative acknowledgement for a terminal type that is not understood, but certain other options (such as switching to BINARY mode) may be refused if a valid terminal type name has not been specified. In some cases, a particular terminal may be known by more than one name, for example a specific type and a more generic type. In such cases, the sender of the TERMINAL-TYPE IS command should reply to successive TERMINAL-TYPE SEND commands with the various names, from most to least specific. In this way, a telnet server that does not understand the first response can prompt for alternatives. However, it should cease sending TERMINAL-TYPE SEND commands after receiving the same response two consecutive times. Similarly, a sender should indicate it has sent all available names by repeating the last one sent. Note that TERMINAL-TYPE IS must only be sent in response to a request (TERMINAL-TYPE SEND), because a host that sent TERMINAL-TYPE IS and then received TERMINAL-TYPE SEND couldn't determine whether the other host was requesting a second option or the TERMINAL-TYPE SEND and the TERMINAL-TYPE IS crossed in midstream.

The type "UNKNOWN" should be used if the type of the terminal is unknown or unlikely to be recognized by the other party.

The complete and up-to-date list of terminal type names will be maintained in the "Assigned Numbers". The maximum length of a terminal type name is 40 characters.